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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,437	01/28/2002	Joachim Hossick-Schott	P-10320.00	4301

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EXAMINER

LEADER, WILLIAM T

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary

Application No.

10/058,437

Applicant(s)

HOSSICK-SCHOTT, JOACHIM

Examiner

William T. Leader

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 31-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-12 and 27 is/are rejected.
- 7) ☒ Claim(s) 4-9, 13-26 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Newly submitted claims 31-40 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the apparatus and medium recited in the newly presented claims may be used in processes other than the process of claims 1-30. For example, the apparatus may be used to anodize products other than pressed and sintered valve metal anodes. Additionally the recitation in claims 30 and 38 that the anodizing electrolyte is maintained at about 40 degrees Celsius or less during anodization is a process-oriented limitation which does not further limit the structure of the claimed apparatus. The apparatus is capable of use at other temperatures.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 31-40 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. Claims 1-3, 10-12 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Jackson (3,943,041) and further in view of Kinard et al (6,235,181) Rasmussen (6,113,770).

3. The admitted prior art is that found on pages 1-9 under the heading "Background of the Invention". The admitted prior art shows that methods for anodizing pressed and sintered valve metal anodes to a target formation potential in which the voltage is ramped up from a starting voltage to a target voltage over a formation time are known. Figure 1a illustrates such a process.

4. Applicant's invention as recited in the amended claims differs from the admitted prior art by reciting the use of pulses of electrical potential and that the anodizing electrolyte is maintained at about 40 degrees Celsius or less during the anodization process. The Jackson patent is directed to a method of producing tantalum capacitors. The process is useful in anodizing a tantalum sintered powder anode (column 1, lines 29-30). Jackson found that small crystals of oxide nucleate can form within the normally amorphous anodic film on the capacitor anode during anodization. When the capacitor is used, these crystalline elements can grow and displace the amorphous oxide from the surface of the anode. This process of field crystallization results in a severe degradation of the dielectric properties of the capacitors (column 1, lines 7-20). Jackson teaches that anodizing should be conducted at a temperature not greater than 25°C (column 1, lines 21-25), and shows that the use of lower anodizing temperatures results in a lower amount of crystalline formation during anodizing. See the table in column 2. Jackson

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discloses that the current may be as high as possible within the limitations imposed by heat dissipation (column 1, lines 50-51).

5. As explained in the previous office action, the Kinard et al patent is directed to a process for anodizing valve metal objects. Kinard et al teach that a pulsed voltage may be utilized to achieve a more uniform oxide thickness within porous anode bodies than is readily obtained with d. c. voltage (column 1, lines 54-57). The Rasmussen patent (6,113,770) is directed to anodizing using pulsed current. Rasmussen discloses that anodization processes generate a significant amount of heat (column 1, lines 56-57). It is recognized that the use of pulsed current provides rest periods with no or low current between anodizing current pulses. These rest periods allow heat to be dissipated (column 2, lines 48-51).

6. The prior art of record is indicative of the level of skill of one of ordinary skill in the art. It would have been obvious at the time the invention was made to have modified the process of the admitted prior art for anodizing pressed and sintered valve metal anodes by utilizing pulsed current because a more uniform oxide thickness would have been formed within the pores as taught by Kinard et al and heat would have been allowed to dissipate during rest periods between pulses as taught by Rasmussen, and to have utilized a temperature of lower than 40°C because crystal formation during anodization would have been reduced resulting in an improved anode as taught by Jackson.

7. Rasmussen discloses that it is known to mechanically stir the electrolyte during anodization, thus teaching the limitations of instant claims 2 and 3. The graph depicting the prior art process in applicant's figure 1a shows that the characteristics recited in claims 10-12 and 27 are known.

Allowable Subject Matter

8. As indicated in the previous office action, claims 4-9, 13-26 and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record does not suggest the particular limitations recited in these claims.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Leader whose telephone number is 571-272-1245. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WL
William Leader
April 2, 2004

ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700